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DRY BEAN CANNING

IN THE UNITED STATES

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The U.S. dry bean canning industry may be considered in three segments, according to types of output: pork and beans, beans in brine, and specialty packs. Many canners operate in all three segments, but specialize in one or another. For example, the large canners of pork and beans may also pack beans in brine and a few specialty items. Some canners may emphasize brine packs and include specialty items. Others may deal principally in specialty items and include a brine pack or even some pork and beans. The largest segment is the pork and bean pack, second, the brine pack and third, the specialty group.

This suggested general classification does not refer to the number of canners involved in a pack, but rather to the volume of output in each. Indeed, the bulk of the pork and beans is processed by relatively few canners. The brine and specialty packs, on the other hand, are more evenly spread among many canners.

Bean classes used

Each segment of the industry uses a class of beans or combination of classes suited to its needs. For example, the large Eastern packers of pork and beans use principally navy beans from Michigan. Western packers of pork and beans also use navy beans, but may include great northern and California small white beans which are produced in the West. On the whole, the pork and bean packs call for white beans and few, if any, colored beans.

Brine packers use all classes of U.S. beans, but emphasize red kidneys in the Midwest and pintos in the South. Specialty packers also use all classes of beans with little emphasis on any particular class or any particular geographical areas of origin. The following classes of beans are being used by brine and specialty packers: navy, great northern, small white, large lima, baby lima, dark red kidney, light red kidney, small red, pintos, black beans and blackeye beans.

Type of pack

In the brine pack, the beans are generally soaked, heated (blanched) in boiling water and canned in a salt or salt-sugar solution. This product may then be seasoned to taste or mixed with other ingredients, and served either warm or

cold. An outstanding advantage of the brine pack is the convenience to the cook or chef, in that the long period of soaking and boiling is already completed.

One notable brine pack is the red kidney bean used in preparing cold salads. The red color, the relatively large size, and the texture of this bean make it especially attractive for this purpose. In the salad, beans may constitute a small or a large proportion of the total serving.

Specialty packs are numerous. Some of them use a particular class of beans -- others may use several classes. Each class is generally packed separately from other classes. Among the specialty items are baked beans, beans in sauces, beans with ham, beans with beef, beans with weiners, beans with sausage, chili, chili con carne, beans with fruit such as raisins, etc.

Almost any one class of beans may be packed with any of the above meats or sauces, or others.

Size of pack

Bean dealers estimate that a total of approximately 7.8 million cwt. of dry beans of the following classes are sold to canners per year currently, in the quantities shown for each class:

<u>Class of beans</u>	<u>Cwt.</u>
Navy	4,300,000
Pinto	1,200,000
Dark red kidney	500,000
Light red kidney	450,000
Small white	375,000
Great northern	250,000
Small red	250,000
Pinks	170,000
Large lima	120,000
Baby lima	75,000
Blackeyes	75,000
Blacks	2,000
Total	<u>7,767,000</u>

Estimates of beans canned in earlier years are available from the National Canners Association for 1950 and from the Bureau of Census for 1958. These figures follow:

For 1950

<u>Type of pack</u>	<u>Cwt.</u>
In sauce with or without pork, including baked beans	1,168,000
Canned, plain	167,000
Dried limas	36,000
Kidney beans	72,000
Total	<u>1,443,000</u>

For 1958

<u>Type of pack</u>	<u>Cwt.</u>
Beans with pork, including baked	2,929,000
Beans with sauce	314,000
Beans, all other dry varieties	1,719,000
Total	<u>4,962,000</u>

If industry data for 1950 are reasonably comparable with current dealer estimates, the comparison reflects an increase of nearly 440 percent in canning of beans.

in the United States in little more than a decade. In the eight-year period 1950-1958, dry bean canning increased by 3.5 million bags, and in the six-year period 1958-1964, an additional 2.9 million bags. Canned beans today are among the nation's important modern convenience foods.

Distribution

Canners feel that U.S. consumption of canned beans is spread geographically throughout the United States with no special concentration in any area nor in any particular income group. Consumption of raw (uncanned dry) beans may be less evenly distributed. There are, however, pockets where certain types of pack are preferred. For example, the use of navy beans in pork and bean packs is popular throughout the nation. Yet, in parts of the mountain areas where great northern beans are grown, there seems to have developed consumer preference for northerns in the pork and bean pack. Canned blackeyes in brine are preferred in the South. Some packers use onions in the pack in some areas and not in other areas. Pinto beans in brine are well accepted in the Southeast, red kidneys in the Pittsburg area, and small reds in the region near St. Louis.

Apparently, canned beans are eaten more in summer than in winter. This upsets some old notions that beans are consumed most heavily in winter. While heavy winter consumption may be characteristic with raw beans, this apparently is not true of canned beans, an important part of which is used as a picnic item. If canned beans become more important in U.S. diets compared to raw beans, the consumption pattern for beans as a whole may become less seasonal.

Competition

The marketing of canned dry beans is highly competitive. Beans are excellent for extending the period of operations of otherwise seasonal canners of fresh fruits or vegetables. Canners of fresh produce frequently add beans to their lines to extend the canning period, to level out employment or to spread overhead. To accomplish this they will push operations on beans to the narrowest margins of profit, or even loss. This adds competition for all bean canners and helps to cause a very small added cost such as freight charges to circumscribe the area in which a bean canner markets his output. Canned beans generally are marketed near the place of output.

On the whole, eastern canners sell their packs in eastern markets, midwestern canners in the Midwest, and mountain states canners in the mountain states. Some large canners operate plants in several sections of the country, thus competing effectively in several areas across the nation.

Offsetting the freight cost to some extent is the movement of canned beans by large chain stores. By mixing cargoes to make up truck or carload lots they may minimize the freight cost on beans.

Special freight rates sometimes are possible by utilizing returning trucks which might otherwise return only partially loaded or empty from delivering a one-way full cargo. The large nationally known brands have advantage in obtaining shelf space in retail stores.

Quality control

The problem of quality control in canning beans concerns principally the raw product. Once the beans are sorted and cleaned, ready for canning, the more difficult part of quality control is past. There seem to have been few new developments in the relatively simple process of canning beans, except in the sorting and cleaning operations. Development of the electric eye sorting machine has eliminated much of the hand sorting, especially of white beans which constitute the bulk of beans canned. Following a good sorting and cleaning of an otherwise acceptable quality of bean, the remainder of the canning process is relatively simple and largely unchanged from earlier years.

The quality of beans for canning has improved materially in recent years in some producing areas through seed-improvement programs. This is especially characteristic in Michigan. Improved farm operations and modern farm machinery also contribute. Farmers with modern machinery and know-how perform timely and speedy operations. Their more adequate incomes induce pride and encourage delivery of cleaner and better-quality beans.

Canners continue to experience problems with some lots, however, particularly with regard to cracked seed coats. This situation varies from year to year and area to area. It is partially a function of moisture variations and the weather.

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